

Into, Through and Beyond Literature

The literature programs on instructional television programs provide exceptional resources for a literature-based curriculum. The story introductions get student into and through the literature. For students in grades three and above, the motivating programs stop at a critical point in the story. To find out how the story ends, they must finish reading themselves. The primary level folktale programs have the folktale printed guide. Teachers can also read some of the story to the class first, and then let them visualize the characters, setting, costumes, etc. before showing them the television lesson. It is imperative that the teacher has the books available in the library or classroom before viewing the lessons.

After the program the teacher must make some management decisions. How do the students access the books? What other related materials are available in the library? Is there a set of books and tapes that circulate?

The suggestions listed below, and those in the teacher guides, provide opportunities for going beyond the book covers:

1. Encourage the students to talk about the story. How did their visualization differ from that on the screen? What did the ending mean? How would the story have ended differently, if they had the power to make one change in the story?
2. Modernize the story: update the time, change the setting, and use contemporary language
3. Add episodes.
4. Create a radio show of the story with sound effects and music.
(Example: Lewis and Clark reporting back to Washington)
5. Compare various versions of familiar tales
6. Discuss what makes a good story.
7. Encourage a dramatization of the story.
8. Retell the story in mime.
9. Draw a cartoon strip of the story.
10. Use puppets and a stage to reenact the story.
11. Develop a group story, told sentence-by-sentence by students. Let a student artist illustrate it.
12. Produce a videotape of the class play.
13. Write a letter to a friend from the point of view of a character in the book.
14. Write an adventure from the point of view of another character.
15. Write a commercial for the story.

MATH (BUSINESS EDUCATION)

Concepts in Business

SUBJECT: Business Education/Life Skills

GRADES: 7-12

NUMBER OF SERIES: 14 Programs

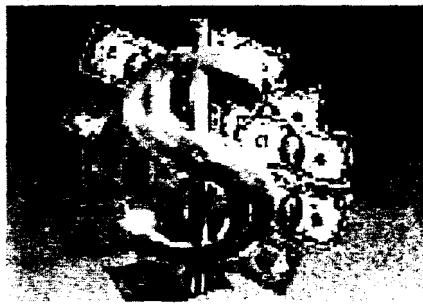
MINUTES: 5 minutes

OTHERS: Videotape and
replay rights yearly; RETAC

CHANNEL: 12

DATE AND TIME: Mon. 1:15 pm
Fri. 11:00 am

SUMMARY: *Concepts in Business* is an animated video series designed to teach the fundamental topics of business. The five-minute programs use clear visual illustrations of concepts and a practical and humorous voice-over to explain the different aspects of commercial activity. The series will lead students to an enhanced understanding of the principles of doing business and will also help them to become better-informed consumers.



Budgeting

Title: *Why Budget?*

Program Description: Explains the main ingredients in budgeting and provides viewers with a recipe for success. Identifies the five steps in preparing a budget and a financial plan.

Week of: 10/9

Program No: 101

Title: *Preparing Your Budget*

Program Description: Describes how to plan and

prepare a budget, make key decisions and the difference between income and expenses.

Week of: 10/16

Program No: 102

Title: *Family Budgeting*

Program Description: Explains how to work with the six major budget categories. Defines the terms net and gross.

Week of: 10/23

Program No: 103

Title: *Budgeting: Business and Government*

Program Description: Examines the basic ingredients of budgeting in business and government. Defines such terms as surplus, revenue, forecast and deficit.

Week of: 10/30

Program No: 104

Credit

Title: *Using Credit*

Program Description: Explains the concept of credit and its importance to the economy. The major advantages of credit are explored.

Week of: 11/6

Program No: 201

Title: *Credit Options*

Program Description: Introduces students to the types of credit that are available. Service credit, sales credit and cash credit are explored, and specific examples of each are given.

Week of: 11/13

Program No: 202

(Call in only)

Week of: 11/20

Title: *Cost of Credit*

Program Description: Examines various forms of credit available to the consumer and the

MATH (BUSINESS EDUCATION)

Concepts in Business (Cont'd.)

costs involved in their use.

Week of: 11/27

Program No: 203

Title: ***Establishing Credit***

Program Description: Explains the steps involved in obtaining credit. The application, investigation and evaluation processes are explored. Students learn how to establish and maintain a good credit history.

Week of: 12/4

Program No: 204

Title: ***Credit Problems***

Program Description: Introduces students to the problems that may be encountered in using credit. The danger signals of credit trouble are explored, and the possible solutions and creditor options are presented.

Week of: 12/11

Program No: 205

Business Ownership

Title: ***Sole Proprietorship***

Program Description: The benefits and risks of being a sole proprietor are explored.

Week of: 1/8

Program No: 301

Title: ***Partnership***

Program Description: Partnership in business is explained, and the contents of a partnership agreement are examined.

Week of: 1/15

Program No: 302

Title: ***Incorporation 1***

Program Description: The reasons for incorporating a business and the legal steps involved are described.

Week of: 1/22

Program No: 303

Title: ***Incorporation 2***

Program Description: Viewers learn about the responsibilities of the shareholders, the board of directors and the executive in running a corporation.

Week of: 1/29

Program No: 304

Title: ***Franchising***

Program Description: The business of franchising is examined: why businesses choose this system, what the advantages and the disadvantages are for the franchisee, and what the franchiser and franchisee exchange in the deal.

Week of: 2/5

Program No: 305

ITV Link: Understanding Taxes

INTERSECTIONS: For related programming check *Too Much, Too Little* in the **Single Time Series**



CURRICULAR LINKS:

Internet links:

<http://php.searchopolis.com/cgi-bin/eseach?engine=encarta&request=business> - A site describing the different forms of business ownerships.

Business Education - field of training in business practices and in specific skills such as accounting, information processing, keyboarding/typewriting, record keeping, and shorthand. Business education in the United States is conducted on two distinct levels: education for administrative support personnel in business and industry and collegiate education for business administration and for business teacher preparation.

"Business Education." Microsoft® Encarta® Online Encyclopedia2000: <http://encarta.msn.com>

MATHEMATICS

Concepts in Math

SUBJECT: Math
GRADES: 10-12
NUMBER OF SERIES: 3 Series/6 10-min.
programs in each (TVO)
MINUTES: 10 minutes
OTHERS: Videotape and
replay rights yearly; RETAC

CHANNEL: 12
DATE AND TIME: Tues. 2:15 pm
Fri. 2:15 pm

SUMMARY: In a clear and dynamic format of computer animation, TVO presents trigonometric functions and vectors. **Trig Functions 1** defines and illustrates sine, cosine and tangent ratios, solves right triangles and develops sine and cosine laws with applications. **Trig Functions 2** presents radian measure, the periodic nature of sine and cosine functions, the phase shift interrelationship and sinusoidal applications. **Vectors** examines concepts of velocity and force and their representations as line segments with magnitude and direction.

Trigonometric Functions 1

Title: *Trigonometric Ratios*

Program Description: Sides of a right triangle are named in relation to a chosen angle: opposite, adjacent and hypotenuse.

Week of: 9/11 2/12

Program No: 101

Title: *Solving Right-angled Triangles*

Program Description: Right triangles in everyday life. Recognizing expressions in trig ratios.

Week of: 9/18 2/19

Program No: 102

Title: *Angles on the Plane*

Program Description: Cartesian plane/coordinate

system: angles in standard position;
counterclockwise rotation.

Week of: 9/25 2/26

Program No: 103

Title: *The Sine Law*

Program Description: Solving oblique triangles; development of sine law.

Week of: 10/2 3/5

Program No: 104

Title: *The Cosine Law*

Program Description: Another method of solving oblique triangles.

Week of: 10/9 3/12

Program No: 105

Title: *Application of Sine and Cosine Laws*

Solving any kind of triangle; includes finding the height of cliff on far side of river.

Week of: 10/16 3/19

Program No: 106

Trigonometric Functions 2

Title: *Radian Measure*

Program Description: Introduction; calculation of ratio of arc length to radius; bending a real number line around the unit circle.

Week of: 10/23 3/26

Program No: 201

Title: *The Sine Function*

Program Description: General equation for a sine function; determination of amplitude and period.

Week of: 10/30 4/2

Program No: 202

Title: *Amplitude and Period*

Program Description: Two wave characteristics; using graph of sine function as an example.

Week of: 11/6 4/23

Program No: 203

MATHEMATICS

Concepts in Math (Cont'd.)

Title: ***Cosine and Tangent Functions***

Program Description: Graphs of $Y = \cos X$ and $Y = \sin X$ compared; amplitude and period of cosine function; $Y = \tan X$ reveals a repeating pattern of asymptotes.

Week of: 11/13 4/30

Program No: 204

(Call in only)

Week of: 11/20 4/9

Program No:

Title: ***Sinusoidal Waves***

Program Description: Phase shift explains cosine function as sine function with phase shift; general equation for sinusoidal waves.

Week of: 11/27 5/7

Program No: 205

Title: ***Applications of Sinusoidal Waves***

Program Description: Electrical current, pendulum motion, tuning fork sound wave production and music examined.

Week of: 12/4 5/14

Program No: 206

Vectors

Title: ***Following the Arrow***

Program Description: Definition, construction, notation of vector.

Week of: 12/11 5/21

Program No: 301

Title: ***Finding the Resultant***

Program Description: Join two vectors, sliding one to the other.

Week of: 1/8 5/28

Program No: 302

Title: ***Ordered Pairs***

Program Description: Calculating the magnitude.

Week of: 1/15 6/4

Program No: 303

Title: ***Resolving Without Grids***

Program Description: Resultant of multiple vectors by adding ordered pairs.

Week of: 1/22 6/11

Program No: 304

Title: ***Force***

Program Description: A real world vector; influence over stationary and moving objects.

Week of: 1/29

Program No: 305

Title: ***Applying Forces***

Program Description: Case of two people pulling a stalled car shows how energy efficiently can be calculated with force vectors.

Week of: 2/5

Program No: 306



CURRICULAR LINKS:

Internet links:

http://www.math.ou.edu/reference/calcl/learn/learn_by_example.html - Calculus: First Semester Problems. A collection of problems and solutions from first semester calculus topics. Each problem includes hints and a detailed answer.

Hot Tips:

Sample problems available via the link "List #1" are organized according to the sections of Arnold Ostebee and Paul Zorn's book, "Calculus from Graphical, Numerical, and Symbolic Points of View." Users do not need to own this textbook to understand these problems.

<http://www.geom.umn.edu/education/calculinit/rainbow/> - A collection of single-variable calculus problems related to the behavior of light and, in particular, the behavior of light traveling through water. Clear diagrams and a Rainbow Simulator that allows viewers to explore the way rays of light act when entering a droplet of water.

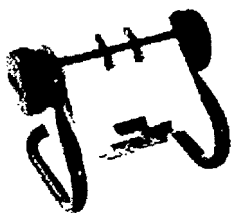
MATH (ECONOMICS)

Econ and Me

SUBJECT: Math
GRADES: 5+
NUMBER OF SERIES: 5 Programs
MINUTES: 15 minutes (AIT)
OTHERS: Videotape and
replay rights yearly: RETAC (State buy)

CHANNEL: 10
DATE AND TIME: Weds. 11:15 am
Fri. 9:00 am

SUMMARY: This series is designed to help children develop critical thinking skills, give them confidence in their ability to do things that are important and helpful to others and provide examples of responsible behavior. Dramatic segments featuring children their own age show students concretely how they fit into the economic system and help them establish a solid conceptual base on which to build.



Title: *Scarcity*

Program Description: You can't have everything you want.
Sometimes you have to make choices.

Week of: 1/22
Program No: 1

Title: *Opportunity Cost*

Program Description: Making choices means giving up other opportunities. Your opportunity cost is the most valuable opportunity you give up.

Week of: 1/29
Program No: 2

Title: *Consumption*

Program Description: Goods and services satisfy people's wants. Consumption is using goods and services.

When thoughtful consumers choose goods and services, they consider the benefits and costs of various choices and choose things that have the greatest benefits for the costs involved.

Week of: 2/5
Program No: 3

Title: *Production*

Program Description: Producers use resources to provide goods and services. They make choices when they decide which resources to use (costs) and which goods and services to provide (benefits). Thoughtful producers consider the costs and benefits and choose the greatest benefits for the costs involved.

Week of: 2/12
Program No: 4

Title: *Interdependence*

Program Description: Your decisions affect other people, and other people's decisions affect you. Careful decision-makers recognize how their decisions affect others by comparing the costs and benefits of various choices. Thoughtful decision-making can help you feel good about yourself and behave responsibly.

Week of: 2/19
Program No: 5

ITV LINKS: *Science is Elementary; Two Plus You*



CURRICULAR LINKS:

Internet links:

<http://MathCentral.uregina.ca/index.html> - Math Central

Resources for math students and teachers of grades K-12. Databases of resources and Q&A for students and teachers can be searched by keyword or browsed by grade level.



MATH (SOCIAL STUDIES/CAREERS)

The Eddie Files: File Box #2

SUBJECT: Math/Social Studies/Careers

GRADES: 3 - 6

NUMBER OF SERIES: 4 Programs

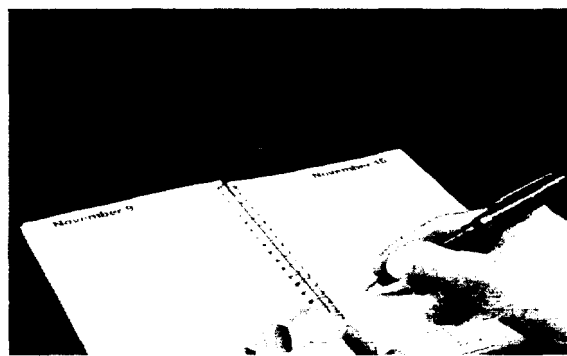
MINUTES: 22 minutes (TVO)

OTHERS: Videotape and
replay rights yearly: RETAC

CHANNEL: 12

DATE AND TIME: Mon. 1:30 pm
Weds. 9:30 am

SUMMARY: Series is based on investigations into the world of careers, conducted by "Eddie", a fictional 11-year-old East Harlem student. It takes viewers from the classroom to the world outside where they meet real people in real jobs.



Title: *Hot Dog Heaven (Distance, Time, and Speed)*

Program Description: When Aunt Rosa's dog Hector is placed in Eddie's charge and wanders off, Eddie is in a panic. Eddie goes to school, where Miss Toliver is teaching a lesson on distance, time, and speed. After school, Eddie finds himself racing against Manhattan traffic to save Hector (while viewers find out from transportation professionals just what it takes to move millions of people across a city every day). To Eddie's surprise, rescuing the dog depends on an understanding of distance, time, and speed--and on Hector's love for a special kind of food.

Week of: 10/30 1/22 3/19

Program No: 1

Title: *The Lucky Batting Glove (Statistics)*

Program Description: Eddie had always dreamed of being in the dugout with the New York Yankees, but he never imagined that the trail leading there would start with Miss Toliver's lesson on statistics. From keeping track of sales as Gus's hot dog stand to seeing what's behind the scoreboard at Yankee stadium, Eddie and Aunt Rosa discover the major role that the subject of statistics plays in the major leagues of baseball and business.

Week of: 11/6 1/29 3/26

Program No: 2

Title: *The Veggie Stash-o-matic (Circles)*

Program Description: After Miss Toliver's lesson on circles, Eddie's homework assignment is to invent a machine. But Eddie is not going to build just any machine. His invention will solve a problem faced by nearly every child: what to do about vegetables. He even comes up with an infomercial to sell it. Eddie's idea may or may not work, but either way, viewers will learn a lot about the practical uses of geometry as they meet designers and engineers.

Week of: 11/13 2/5 4/2

Program No: 3

(Call in only)

Week of: 11/20 4/9

Program No:

Title: *The Fake Money Caper (Decimals)*

Program Description: The math topic is decimals, the subject is money, and Eddie once again finds himself in the middle as he helps Secret Service agents track down a counterfeiting ring. He also consults with people whose job it is to create, and safeguard, our money supply. Things are not always what they seem, but Eddie realizes that if he uses his head and what he learned in Miss Toliver's lesson, he can figure out the true value of a peso, a ruble, or any questionable \$100 bill.

Week of: 11/27 2/12 4/23

Program No: 4

ITV LINKS: *Eddie Files: File Box*

MATH (SOCIAL STUDIES/CAREERS)

The Eddie Files: File Box #3

SUBJECT: Math/Social Studies/Careers

GRADES: 3 - 6

NUMBER OF SERIES: 4 Programs

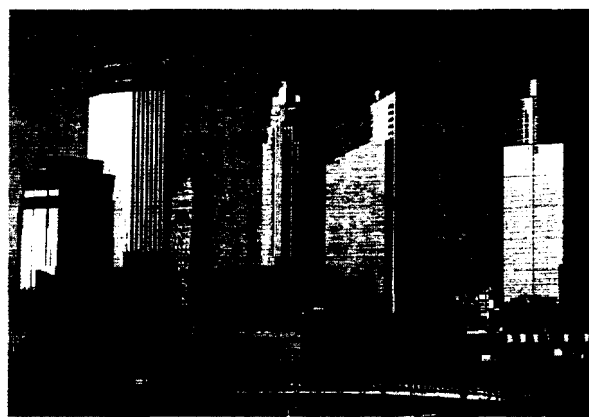
MINUTES: 22 minutes (TV)

OTHERS: Videotape and
replay rights yearly; RETAC

CHANNEL: 12

DATE AND TIME: Tues. 9:30 am
Thurs. 1:30 pm

SUMMARY: Series is based on investigations into the world of careers, conducted by "Eddie", a fictional 11-year-old East Harlem student. It takes viewers from the classroom to the world outside where they meet real people in real jobs.



ITV LINKS: *Eddie Files: File Box #2*

Title: *Sleep Like a Dog (Length and Area)*

Program Description: Aunt Rosa's dog Hector displays true talent when he is cast for a mattress commercial. Producing the commercial turns out to be a little more adventurous than anyone had expected, but the biggest surprise is the amount of math used by people who design and make TV and movie sets. A surprise, that is, to everyone but Miss Toliver, whose lesson on apartment architecture really "sets the stage" for this episode.

Week of: 12/4 2/19 4/30

Program No: 1

Title: *The Big Concert (Patterns)*

Program Description: It's December at P.S. 72, and to Eddie that means just one thing: getting ready for his big part in the annual holiday concert. It's just one note, but it has to be perfect, and Eddie's practice sessions with the school band haven't been going too well. He decides to find out how professional musicians create their magic, and gets some help, too, from Aunt Rosa and his friend Vincent (who are practicing for their own concerts). As it turns out, it is Miss Toliver's lesson on patterns that finally puts Eddie on the right track.

Week of: 12/11 2/26 5/7

Program No: 2

Title: *The Day Manhattan Ran (Volume)*

Program Description: Manhattan holds a lot of people, and they use lots and lots of water. But what if that supply were cut off, just for one day? It's that thought that launches Eddie on a creative essay on the consequences of no water. For one thing, it would be a really, really "bad hair day" for a whole city. Miss Toliver, of course, would see it as a wonderful teaching opportunity for a lesson on volume measurement. But it would also give Eddie a chance to meet some of the people whose job it is to make sure that the only way Manhattan will ever run dry is the way it happens in this episode: In Eddie's imagination.

Week of: 1/8 3/5 5/14

Program No: 3

Title: *Eddie In Barbieland (The Counting Principle)*

Program Description: Eddie would do almost anything for his little sister, Dec, but this time his Mom's request goes too far: Eddie is to buy doll clothes for Dec's birthday. Though he learns a lot in Miss Toliver's lesson on clothing combinations and the counting principle, and gets the inside scoop from designers who work for one of the country's top toy makers, Eddie still doesn't feel ready for the job. So, naturally, he recruits someone else. Unfortunately, the result isn't something he would have predicted even with the counting principle.

Week of: 1/15 3/12 5/21

Program No: 4

MATH (ECONOMICS)

Give and Take

SUBJECT: Math; Economics

GRADES: 8 - 10

NUMBER OF SERIES: 12 Programs

MINUTES: 15 minutes, (AIT)

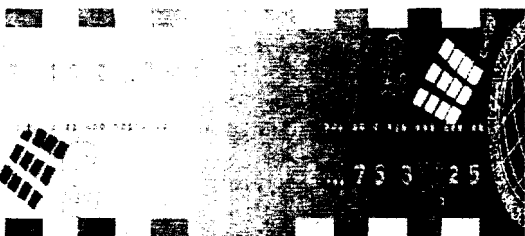
OTHERS: Videotape and
replay rights yearly; RETAC (State buy)

CHANNEL: 8

DATE AND TIME: Tues. 9:00 am

Fri. 11:15 am

SUMMARY: Give and Take is designed to improve personal economics instruction in schools. The dramatized programs used in conjunction with the Teacher's Manual will help students improve their economic reasoning and decision-making skills. The series is appropriate for use in classes in economics, consumer education, career education and home economics.



Title: *You Choose: Scarcity and Personal Decision Making*

Program Description: Discusses the management of time and money.

Week of: 9/11

Program No: 1

Title: *We Choose: Scarcity and Social Decision-Making*

Program Description: Applies the concepts of social decision making and conflicting goals in

consumer protection.

Week of: 9/18

Program No: 2

Title: *Let's Save: Opportunity Cost*

Program Description: Applies the concepts of opportunity costs and trade-offs to the areas of spending and saving.

Week of: 9/25

Program No: 3

Title: *Creditwise: Opportunity Cost*

Program Description: Applies the concepts of opportunity costs and trade-offs to the area of consumer credit.

Week of: 10/2

Program No: 4

Title: *Where Do Jobs Come From? Derived Demand*

Program Description: Discusses the concept of derived demand in the area of career choices.

Week of: 10/9

Program No: 5

Title: *A Key to Productivity: Human Capital*

Program Description: Discusses the investment of human capital and productivity in career choices.

Week of: 10/16

Program No: 6

Title: *Private or Public? Public Goods and Services*

Program Description: Discusses public goods and services.

Week of: 10/23

Program No: 7

Title: *Changing Taxes: Public Goods and Services*

Program Description: Discusses public goods, services and taxation.

Week of: 10/30

MATH (ECONOMICS)

Give and Take (Cont'd.)

Program No: 8

Title: **Market Prices: Supply and Demand**

Program Description: Discusses changing market prices.

Week of: 11/6

Program No: 9

Title: **Changing Market: Supply and Demand**

Program Description: Discusses changes in demand and supply.

Week of: 11/13

Program No: 10

(Call in only) 11/20

Title: **Take Your Choice: Substitution**

Program Description: Applies the economic concept of substitution to the area of consumers and the marketplace.

Week of: 11/27

Program No: 11

Title: **Why Competition? Market Structure**

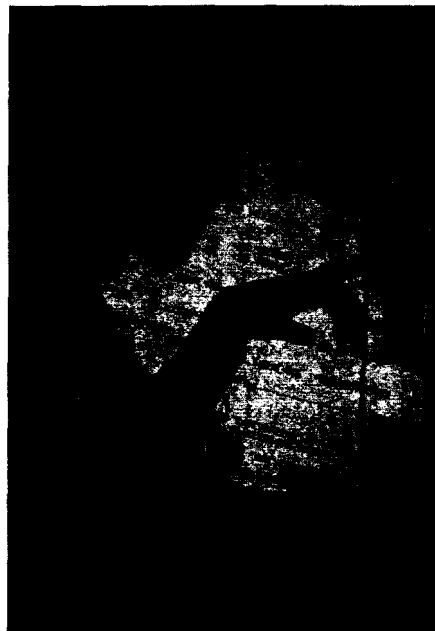
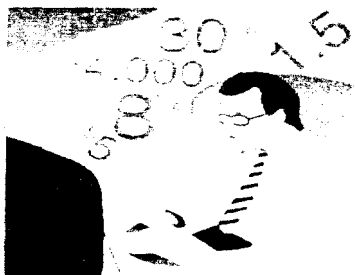
Program Description: Focuses on competitive and non-competitive prices.

Week of: 12/4

Program No: 12

ITV Link: *Reading Rainbow II*

INTERSECTIONS For related programming check *Too Much, Too Little* in the **Single Time Series**.



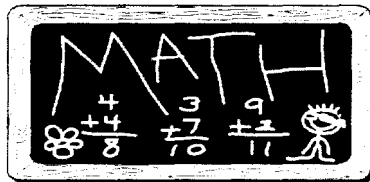
MATHEMATICS

It Figures

SUBJECT: Math : Problem solving
GRADES: 4
NUMBER OF SERIES: 28 Programs
MINUTES: 15 minutes
OTHERS: Videotape and replay rights
 in perpetuity; RETAC (State buy)

CHANNEL: 8
DATE AND TIME: Tues. 10:45 am
 Thurs. 9:00 am

SUMMARY: Reinforces traditional fourth-grade math topics. Each program strengthens a specific skill, idea or problem solving strategy and encourages students to think and talk confidently about math. The format features a realistic dramatic episode in which pupils see children their own age using math to think, reason and solve problems both in school and in their lives outside the classroom. At midpoint, a short animated fantasy reinforces the math concept involved.



Title: *Deciding When to Use Subtraction*
 Week of: 9/11
 Program No: 1

Title: *Deciding How Close to Measure*
 Week of: 9/18
 Program No: 2

Title: *Problem Solving: Acting It Out*
 Week of: 9/25
 Program No: 3

Title: *Using Estimation*
 Week of: 10/2
 Program No: 4

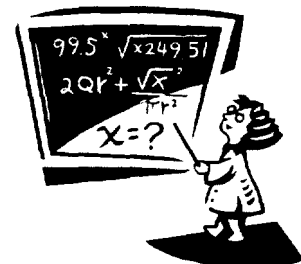
Title: *Understanding Place Value*
 Week of: 10/9
 Program No: 5

Title: *Deciding When to Use Multiplication*
 Week of: 10/16
 Program No: 6

Title: *Using Fractions*
 Week of: 10/23
 Program No: 7

Title: *Problem Solving: Drawing a Picture*
 Week of: 10/30
 Program No: 8

Title: *Looking at Subjects from Different Positions*
 Week of: 11/6
 Program No: 9



Title: *Using Mental Computation*
 Week of: 11/13
 Program No: 10

(Call in only) 11/20

Title: *Using Division*
 Week of: 11/27
 Program No: 11

Title: *Problem Solving: Making a Table*
 Week of: 12/4
 Program No: 12

Title: *Using Multiplication and Division*
 Week of: 12/11
 Program No: 13

MATHEMATICS

It Figures (Cont'd)

Title: *Relating Fractions and Decimals*

Week of: 1/8

Program No: 14

Title: *Predicting Your Change*

Week of: 1/15

Program No: 15

Title: *Using Bar Graphs*

Week of: 1/22

Program No: 16

Title: *Understanding Remainders*

Week of: 1/29

Program No: 17

Title: *Problem Solving: Recognizing
Necessary Information*

Week of: 2/5

Program No: 18

Title: *Finding Equivalent Fractions*

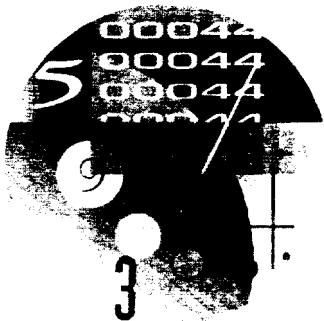
Week of: 2/12

Program No: 19

Title: *Finding Area by Covering*

Week of: 2/19

Program No: 20



Title: *Making Sense of a Big Number*

Week of: 2/26

Program No: 21



Title: *Estimating When Dividing*

Week of: 3/5

Program No: 22

Title: *Comparing Decimals*

Week of: 3/12

Program No: 23

Title: *Using Probability*

Week of: 3/19

Program No: 24

Title: *Changing Scale on a Graph*

Week of: 3/26

Program No: 25

Title: *Problem Solving: Keep on Trying*

Week of: 4/2

Program No: 26

Title: *Problem Solving: Many Ways to Go*

Week of: 4/23

Program No: 27

Title: *Problem Solving: Using a Guide*

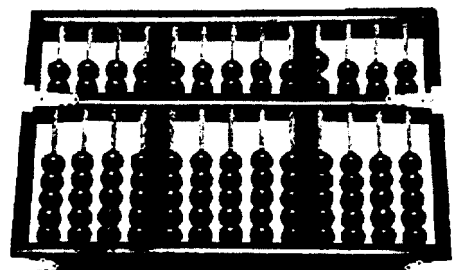
Week of: 4/30

Program No: 28

Call in only 4 9

QUOTE

"It is the mark of an educated mind to rest satisfied with the degree of precision which the nature of the subject admits and not to seek exactness where only an approximation is possible." -- Aristotle



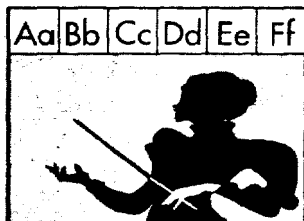
MATH (GEOMETRY)

Landscape of Geometry

SUBJECT: Math; Geometry
GRADES: 7 - 10
NUMBER OF SERIES: 8 Programs
MINUTES: 15 minutes (TVO, 1982)
OTHERS: Videotape and replay rights yearly; RETAC (State buy)

CHANNEL: 8
DATE AND TIME: Mon. 9:30 am
Weds. 11:00 am

SUMMARY: Shows students how geometry is used to solve various problems in the world around them. Carefully selected examples and problems are provided to give a sense of relevancy to the subject of geometry. Using computer animation and other effects, the programs take students beyond the simple mechanical process and make geometry come alive for them.



ITV Link: *Power of Algebra*

Title: *Shape of Things*
Program Description: Describes geometry as a means of exploring shapes beneath objects and movements.
Week of: 11/27 5/7
Program No: 1

Title: *It's Rude to Point*
Program Description: Examines straight lines and rays and the concept of direction.
Week of: 12/4 5/14
Program No: 2

Title: *Lines That Cross*
Program Description: Explores the geometric properties of the intersections of straight lines.
Week of: 12/11 5/21
Program No: 3

Title: *Lines That Don't Cross*
Program Description: Describes the nature of parallel lines.
Week of: 1/8 5/28
Program No: 4

Title: *Up, Down and Sideways*
Program Description: Examines the properties of right angles.
Week of: 1/15 6/4
Program No: 5

Title: *Trustworthy*
Program Description: Explores the nature of triangles.
Week of: 1/22 6/11
Program No: 6

Title: *Cracking Up*
Program Description: Examines tiles and tiling as contrasted to geometric lines.
Week of: 1/29
Program No: 7

Title: *Range of Change*
Program Description: Discusses the concept of transformation.
Week of: 2/5
Program No: 8



CURRICULAR LINKS:

Internet links:
<http://math.rice.edu/~lanius/Geom/index.html>
(Geometry on line – includes history, puzzles, quizzes, NCTM standards link)
<http://www.geom.uiun.edu> (The Geometry Center – multimedia projects, graphics, formulas, downloadable software, etc)

Geometry (Greek *geo*, "earth"; *metrein*, "to measure"). branch of mathematics that deals with the properties of space. In its most elementary form geometry is concerned with such metrical problems as determining the areas and diameters of two-dimensional figures and the surface areas and volumes of solids. (Source: <http://encarta.msn.com>)

Did you know? The ancient Egyptians used geometry to construct the pyramids.

MATHEMATICS

Mathica's Mathshop 1

SUBJECT: Math 1
GRADES: 1
NUMBER OF SERIES: 10 Programs
MINUTES: 15 minutes (TVO. ca. 1993)
OTHERS: Videotape and replay rights
yearly: RETAC

CHANNEL: 10
DATE AND TIME: Weds. 10:30 am
Fri. 9:30 am

SUMMARY: Return to the enchanting mathshop as Mathica, an elf in the Land of Tales, continues to solve the many math-related problems that perplex the inhabitants of this fairy tale land. Based on familiar tales, as well as traditional multicultural stories, the new programs pose such problems as: How many biscuits will Old Mother Hubbard's dog eat in a week? What are Robin Hood and his Merry Band's total record sales? How can Mathica and the Hare divide up the tarts they have made for a tea party fairly among all the guests?

Children will enjoy these charming fairy-tale-style programs as they learn to recognize and solve story-related mathematical problems. Students discover how to reason and communicate mathematically, as programs put math into a meaningful context with a whole-language approach to curriculum.

Publication: A teacher's guide with program synopses, learning objectives, and student activity work sheets is available.

Title: *Help Wanted*
Week(s) of: 9/11
Program No: 1

Title: *The King Comes Calling*
Week(s) of: 9/18
Program No: 2

Title: *Food for Thought*
Week(s) of: 9/25
Program No: 3

Title: *All-Star Elf*
Week(s) of: 10/2
Program No: 4

Title: *Sweet Dreams*
Week(s) of: 10/9
Program No: 5

Title: *Winter Wonders*
Week(s) of: 10/16
Program No: 6

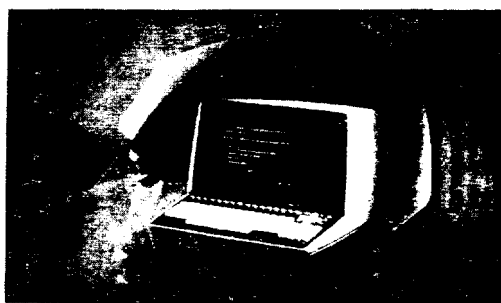
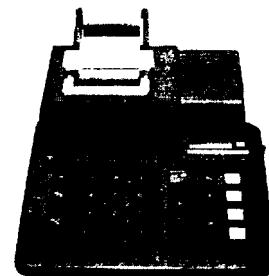
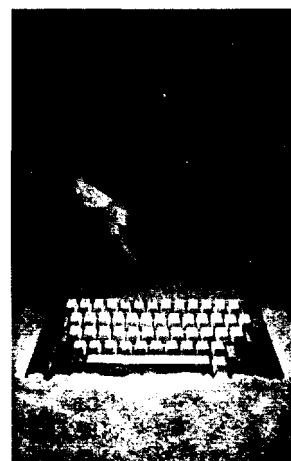
Title: *Best Wishes*
Week(s) of: 10/23
Program No: 7

Title: *Mary, Mary Extraordinary*
Week(s) of: 10/30
Program No: 8

Title: *A Sure Cure*
Week(s) of: 11/6
Program No: 9

Title: *A Rich Reward*
Week(s) of: 11/13
Program No: 10

(Call in only) 11/20



MATHEMATICS

Power of Algebra

SUBJECT: Math
GRADES: 7-9
NUMBER OF SERIES: 10 Programs
MINUTES: 15 minutes (GPN, 1989)
OTHERS: Videotape and replay rights yearly: CTN

CHANNEL: 8
DATE AND TIME: Mon. 9:30 am
Weds. 11:00 am

SUMMARY: Uses computer animation and on-site interviews with people who use algebra daily, to help students turn mathematical stumbling blocks into building blocks for learning algebraic concepts. College professors and classroom teachers teamed up with ITV professionals at the Louisiana State Department of Education to produce this award-winning series.

Title: *Inverse Operations*
Week(s) of: 2/12
Program No: 1

Title: *Order of Operations*
Week(s) of: 2/19
Program No: 2

Title: *Basic Properties*

Week(s) of: 2/26
Program No: 3

Title: *Positive and Negative Numbers*
Week(s) of: 3/5
Program No: 4

Title: *Using Positive Exponents*
Week(s) of: 3/12
Program No: 5

Title: *Polynomials and Equations*
Week(s) of: 3/19
Program No: 6

Title: *Factoring I*
Week(s) of: 3/26
Program No: 7

Title: *Factoring II*
Week(s) of: 4/2
Program No: 8

Title: *Fractions*
Week(s) of: 4/23
Program No: 9

Title: *Words into Symbols*
Week(s) of: 4/30
Program No: 10

(Call in only) 11/20 4/9



DID YOU KNOW?

Mathematics has roots in ancient Egypt and Babylonia, and then grew rapidly in ancient Greece. Mathematics that was written in ancient Greek was translated into Arabic. About the same time some mathematics of India was translated into Arabic. Later some of this mathematics was translated into Latin and became the mathematics of Western Europe. Over a period of several hundred years, it became the mathematics of the world. By far, the most significant development in mathematics was giving it firm logical foundations. This took place in ancient Greece in the centuries preceding Euclid. Logical foundations give mathematics more than just certainty—they are a tool to investigate the unknown.

Source: <http://aleph0.clarku.edu/~djoyce/mathhist/mathhist.html> (History of Mathematics)

MATHEMATICS

Project MATHEMATICS!

SUBJECT: Mathematics
GRADES: 9-12
NUMBER OF SERIES: 8 Programs
MINUTES: 20-30 minutes
OTHERS: Videotape and replay rights
yearly; RETAC (State buy)

CHANNEL: 12
DATE AND TIME: Tues. 1:00 pm
Weds. 10:00 am

SUMMARY: *Project MATHEMATICS!* makes high school math understandable, exciting, and worthwhile. Animation, motion, and 3-dimensional images are used to demonstrate concepts. The programs provide historical perspectives and connections to real-world problems. A thirty-minute utilization program entitled *The Teachers Workshop* is available for viewing by calling 213/251-3399.

Title: Theorem of Pythagoras

Program Description: Begins with the mathematical problem: *Find the length of one side of a triangle if the lengths of the other two sides are known.* The problem is solved by a simple computer-animated derivation of the Pythagorean theorem. Historical context shows Babylonian clay tablets and Euclid's elements. The program shows several proofs of the Theorem of Pythagoras, extends it to 3-dimensional space, and shows how the Pythagorean theorem is used in trigonometry.

Week(s) of: 2/26 5/7
Program No: 1

Title: *The Story of Pi*

Program Description: Reviews two properties of similar figures. The program discusses pi and uses similarity to explain why the ratio of circumference to diameter is the same for all circles. It also

describes a sequence of improved estimates for the value of π , and points out that π is irrational. The concluding segment explains that major achievements in the estimates for π represent landmarks of important advances in the history of mathematics.

Week(s) of: 3/5 5/14
Program No: 2

Title: *Similarity*

Program Description: Reviews ratios and shows a variety of objects having the same shape but not necessarily the same size. Scaling is introduced and shows what happens to perimeters, areas, and volumes under scaling. Applications show how Thales might have used similar triangles to find the height of a column and of a pyramid by comparing lengths of shadows. Similarity is the basis of all measurement and reveals the secret map making and scale drawings, and also explains some aspects of photographic images.

Week(s) of: 3/12 5/21
Program No: 3

Title: *Polynomials*

Program Description: Reviews prerequisites and explains polynomials and the shape of their graphs in a rectangular coordinate system. The program shows polynomial curves in real life, including the use of cubic splines in designing sailboats. There is also a systematic description of polynomials by degree as well as cubic polynomials. There is a discussion of possible zeroes, local maxima, local minima, and points of inflection in this episode. A similar discussion is given for quartics and higher degree polynomials, all of which have infinitely many prototypes.

Week(s) of: 3/19 5/28
Program No: 4

Title: *Sine and Cosines, Part 1*

Program Description: Shows how sines and cosines arise in different contexts: as the rectangular coordinates of a point moving on a unit circle, as graphs related to vibrating motion (illustrated by musical instruments), and as ratios of sides of

MATHEMATICS

Project MATHEMATICS! (Cont'd.)

right triangles. Reflecting the sine curve about various lines reveals simple properties of the sine function, for example $\sin(-t) = -\sin t$, $\sin(\pi-t) = \sin t$, $\sin(\pi+t) = -\sin t$. Reflection of the sine curve about the line $t = \pi/4$ generates a new curve, called a cosine curve, given by $\cos t = \sin(\pi/2-t)$.

Week(s) of: 3/26 - 6/4

Program No: 5

Title: *Sine and Cosines, Part II*

Program Description: Trigonometry - Focuses on two properties that are important in trigonometry: (1) a generalization of the Pythagorean Theorem called the law of cosines; and (2) the law of sines. Applications are described in astronomy, navigation, and surveying by triangulation. One of the major triumphs of surveying by triangulation, the Survey of India, took more than a century to complete. The program describes how this survey was done and how it led to the determination of the height of Mt. Everest. The program also outlines a brief history of instruments used in surveying.

Week(s) of: 4/2 - 6/11

Program No: 6

Title: *Sine and Cosines, Part III*

Program Description: Addition Formulas - Relates the sine and cosine of an angle with lengths of chords of a circle, as expounded in Claudius Ptolemy's *Almagest*. This leads to simple derivations of the addition formulas for determining the sine and cosine of a sum of two angles. The program also outlines a brief history of the city of Alexandria that attracted many of the greatest mathematical scholars including Euclid, Apollonius, Archimedes, Eratosthenes, Hero, Pappus, Claudius Ptolemy and the last Alexandrian woman mathematician, Hypatia.

Week(s) of: 4/23

Program No: 7

Title: *Tunnel of Samos*

Program Description: Tells the story of one of the most remarkable engineering achievements of ancient times. In the 6th century B.C. on the island of Samos in the Aegean Sea, a Greek

engineer, Eupalinos of Megara, excavated a tunnel. It was more than a thousand meters long, and ran straight through the heart of a mountain. He used separate crews that dug from each end and met in the middle. The workers who carved the tunnel with primitive tools met at the center with an error less than 0.15% of the length, a remarkable achievement for that era. No written record exists that describes how Eupalinos determined the direction of excavation, but there are some convincing explanations. This program describes Hero's method which used similar triangles as well as alternate methods proposed by scholars in modern times.

Week(s) of: 4/30

Program No: 8

(Call in only 4-9)



CURRICULAR LINKS:

Internet links:

<http://www.math.com> -Free math lessons and math homework help from basic math to algebra, geometry and beyond. Students, teachers, parents, and everyone can find solutions to their math problems instantly.

<http://www.funbrain.com/math> - Improve your math skills. Fun game teaches addition, subtraction, multiplication, division, and elementary algebra. For kids and children of all ages and grades.

<http://www.enc.org> - ENC Online is the web site of the Eisenhower National Clearinghouse for Mathematics and Science Education. The site provides access to ENC's catalog of instructional materials; ENC's web projects on topics such as TIMSS, teacher change, and equity, etc.

CD- Rom: *Princeton Review Algebra Edge* (by The Learning Company). The Princeton Review Algebra Edge combines two engaging titles -- Algebra Smart and Grade Builder Algebra I -- into one complete algebra package! Includes over 500 practice problems and step-by-step solutions and over 60 interactive topics and lessons.

MATHEMATICS

Solve It

SUBJECT: Math

GRADES: 6

NUMBER OF SERIES: 18 Programs

MINUTES: 15 minutes (AIT, 1987)

OTHERS: Videotape and replay rights
yearly; RETAC (State buy)

CHANNEL: 10

DATE AND TIME: Mon. 10:45 am
Thurs. 9:15 am

SUMMARY: The emphasis of this math series is on problem-solving, by applying mathematics to the real world. Programs are designed to develop skills in gathering, organizing and interpreting information, drawing and testing inferences from data and communicating results. Using a dramatic format, the series provides opportunities to formulate key questions, analyze and conceptualize problems, discover patterns and similarities, experiment, suggest explanations, transfer skills and strategies to new situations and draw on background knowledge in applying

Title: *Estimation*

Program Description:

Reasonableness of answer.

Week(s) of: 9/11 2/12

Program No: 1

Title: *Mental Computation*

Program Description: Using
mental computation for
multiplication.

Week(s) of: 9/18 2/19

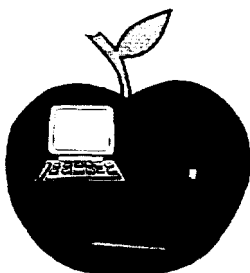
Program No: 2

Title: *Ratio/Proportion and
Percent*

Program Description: The meaning
of percent.

Week(s) of: 9/25 2/26

Program No: 3



Title: *Problem Solving*

Program Description: Drawing and
interpreting tables.

Week(s) of: 10/2 3/5

Program No: 4

Title: *Measurement*

Program Description: Precision and
estimation.

Week(s) of: 10/9 3/12

Program No: 5

Title: *Statistics*

Program Description: Understanding
mean, median and mode.

Week(s) of: 10/16 3/19

Program No: 6

Title: *Fractions*

Program Description: Multiplication
with fractions and mixed numbers.

Week(s) of: 10/23 3/26

Program No: 7

Title: *Decimals*

Program Description: Ordering
decimals. (r. 1989)

Week(s) of: 10/30 4/2

Program No: 8

Title: *Geometry and Measurement*

Program Description: Measuring volume.

Week(s) of: 11/6 4/23

Program No: 9

Title: *Estimation*

Program Description: Estimation strategies
for multiplication.

Week(s) of: 11/13 4/30

Program No: 10

(Call in only) 11/20 4/9

Title: *Problem Solving*

Program Description: Solving a
simpler problem.

MATHEMATICS

Solve It (Cont'd.)

Week(s) of: 11/27 5/7
Program No: 11

Title: **Statistics**
Program Description: Sampling.
Week(s) of: 12/4 5/14
Program No: 12

Title: **Fractions**
Program Description: Subtracting mixed numbers.
Week(s) of: 12/11 5/21
Program No: 13

Title: **Estimation**
Program Description: Estimation strategies for division.
Week(s) of: 1/8 5/28
Program No: 14

Title: **Problem Solving**
Program Description: Guess/check/revise.
Week(s) of: 1/15 6/4
Program No: 15

Title: **Geometry and Measurement**
Program Description: Measuring angles.
Week(s) of: 1/22 6/11
Program No: 16

Title: **Problem Solving**
Program Description: Using logical reasoning.
Week(s) of: 1/29
Program No: 17

Title: **Ratio/Proportion/Percent**
Program Description: Scale drawing and models.
Week(s) of: 2/5
Program No: 18



CURRICULAR LINKS:

Internet links:

<http://www.americatakingaction.com/studyhall/math.1tm> - AmericaTakingAction.com Study Hall. Resources for teachers, parents, kids and businesses.

http://www.math.ou.edu/reference/calcl/learn/learn_by_example.html - Calculus: First Semester Problems ("The OU Calculus I Problem Archive" Prof. P. Goody, University of Oklahoma Math Department). High school students in AP Calculus and college students in first semester calculus will find this collection of problems and solutions useful for reviewing topics such as limits, derivatives, Taylor polynomials, and Newton's method. Individual problems are organized according to general topic (e.g., Limits and Continuity, The Chain Rule, etc.). The author's clear and precise solutions will be particularly valuable to students.

Cd-Rom: Math Blaster (by: Knowledge Adventure) Students from grades 1-5 can master their math skills and have fun while doing so. Every grade level of Math Blaster is specially created to interest that particular age group.

Cd-Rom: Math Blaster Geometry (by: Davidson and Associates). Covers 58 subject areas for middle and junior high school students including attributes of triangles, circles and other polygons; calculating area, perimeter and volume; logic and reasoning; and coordinate geometry, proofs and theorems.

Cd-Rom: Sticky Bear Math 2 (by Optimum Resource). Multiplication and division skills for lower grade students. Like math 1, it can be individually configured for specific levels and customized for up to 40 students. Math 2 has an automatic difficulty level monitor to adjust problems and minimize frustration and keep records.



MATH (ECONOMICS)

Trade Offs

SUBJECT: Economics
GRADES: 4-6
NUMBER OF SERIES: 15 Programs
MINUTES: 20 minutes
OTHERS: Videotape and replay rights
yearly: RETAC (State buy)

CHANNEL: 10
DATE AND TIME: Tues. 10:45 am
Fri. 2:00 pm

SUMMARY: *Trade Offs* is an economics education series for nine to eleven year olds. The programs are designed to increase knowledge of the economic world of the student. Each program begins with a short segment which identifies key points that students and teachers should watch for. This is followed by the dramatization of a fundamental economic problem relevant to the daily life of the student. Special visuals then emphasize the economic principles and reasoning processes involved. The last portion of the program introduces, but does not resolve, another problem involving the posing of a question to the viewers.

Title: *Choice (Opportunity Costs)*

Program Description: Identifies possible alternative uses of a limited resource and explains why a choice is inevitable when a limited resource has alternative uses.

Week(s) of: 9/11

Program No: 1

Title: *Malcolm Decides (Personal Decision-Making)*

Program Description: Applies a five-step decision-making process to a personal decision.

Week(s) of: 9/18

Program No: 2

Title: *We Decide (Social Decision-Making)*

Program Description: Suggests alternative methods of allocating a limited resource. Identifies the criteria implied in each allocating method.

Week(s) of: 9/25

Program No: 3

Title: *Give and Take (Trade-Offs Among Goals)*

Program Description: Defines *trade-off* as giving up some of one thing to get some of another thing.

Week(s) of: 10/2

Program No: 4

Title: *Less and More (Increasing Productivity)*

Program Description: Cites examples of producing more output with the same or fewer inputs.

Week(s) of: 10/9

Program No: 5

Title: *Working Together (Specialization and the Division of Labor)*

Program Description: Summarizes the advantages and disadvantages of specialization and division of labor.

Week(s) of: 10/16

Program No: 6

Title: *Does It Pay? (Investment in Capital Goods)*

Program Description: Summarizes the advantages and disadvantages of investment in capital goods.

Week(s) of: 10/23

Program No: 7

Title: *Learning and Earning (Investment in Human Capital)*

Program Description: Summarizes the

QUOTE:

Mathematics, rightly viewed, possesses not only truth, but supreme beauty - a beauty cold and austere, like that of sculpture.

-- Bertrand Russell

MATH (ECONOMICS)

Trade Offs (Cont'd.)

advantages and disadvantages of investment in human capital.

Week(s) of: 10/30

Program No: 8

Title: ***Why Money? (Voluntary Exchange)***

Program Description: Cites examples of exchange and describes the ways both parties expect to benefit.

Week(s) of: 11/6

Program No: 9

Title: ***To Buy or Not to Buy (Buyers and Market Demand)***

Program Description: Outlines the factors that influence how much of an item people will buy.

Week(s) of: 11/13

Program No: 10

(Call in only) 11/20

Title: ***To Sell or Not to Sell (Sellers and Market Demand)***

Program Description: Outlines the factors that influence the quantity of an item people will offer for sale.

Week(s) of: 11/27

Program No: 11

Title: ***At What Price? (Market Clearing Prices)***

Program Description: Defines a market-clearing price as one at which there is neither a surplus nor a shortage.

Week(s) of: 12/4

Program No: 12

Title: ***How Could That Happen? (Interdependence of Market Prices)***

Program Description: Explains how a change in consumer purchases in one market can have unforeseen consequences in other markets.

Week(s) of: 12/11

Program No: 13

Title: ***Innocent Bystanders (Market Intervention: Reducing Indirect Costs)***

Program Description: Discusses indirect costs and

alternative methods for reducing indirect costs.

Week(s) of: 1/8

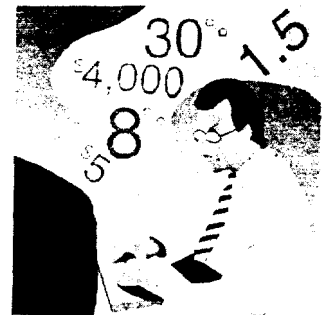
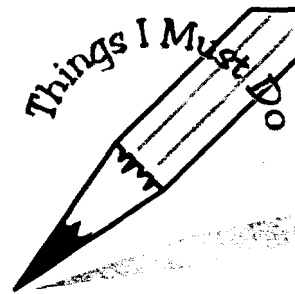
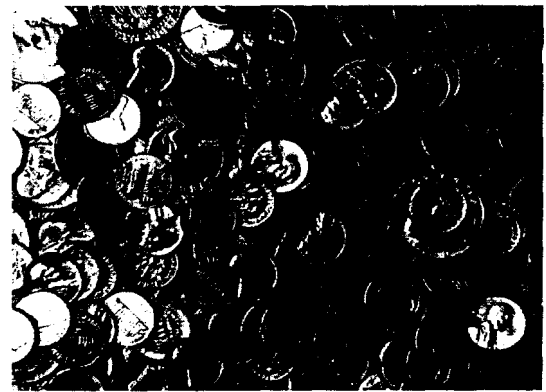
Program No: 14

Title: ***Helping Out (Market Intervention: Increasing Indirect Benefits)***

Program Description: Discusses indirect benefits and alternative methods for increasing indirect benefits.

Week(s) of: 1/15

Program No: 15



MATHEMATICS

Two Plus You (Math Patrol 1)

SUBJECT: Math
GRADES: 1
NUMBER OF SERIES: 16 Programs
MINUTES: 15 minutes (TVO, 1976)
OTHERS: Videotape and replay rights yearly; CTN

CHANNEL: 10
DATE AND TIME: Weds. 11:15 am
Fri. 9:00 am

SUMMARY: Supports students in the initial stages of mathematical understanding. Leading them through a sequence of stimulation, motivation, identification and investigation. The mathematical concepts are introduced in a *real* setting before they are abstracted. A variety of methods are used to make the introduction to math fun and prepare youngsters for the Math Patrol series for grades 2 and 3.

Title: *The Teddy Bear Who Wanted to Go Home*
Week(s) of: 9/11
Program No: 1

Title: *The Great Train Contest*
Week(s) of: 9/18
Program No: 2

Title: *The Treasure Trail*
Week(s) of: 9/25
Program No: 3

Title: *Rain, Rain, Go Away*
Week(s) of: 10/2
Program No: 4

Title: *A Hard Day's Work*
Week(s) of: 10/9
Program No: 5

Title: *Mr. Bean's New Games*
Week(s) of: 10/16
Program No: 6



Title: *Patterns*
Week(s) of: 10/23
Program No: 7

Title: *Ten Has Its Place*
Week(s) of: 10/30
Program No: 8

Title: *The Stick That Helped*
Week(s) of: 11/6
Program No: 9

Title: *The Secret Message*
Week(s) of: 11/13
Program No: 10

(Call in only) 11/20

Title: *Hot or Cold*
Week(s) of: 11/27
Program No: 11

Title: *A Balance for Everything*
Week(s) of: 12/4
Program No: 12

Title: *Are You Ready for a Game?*
Week(s) of: 12/11
Program No: 13

Title: *A Very Fine Line*
Week(s) of: 1/8
Program No: 14

Title: *Fair Exchange*
Week(s) of: 1/15
Program No: 15

Title: *Mr. Bean's Special Day*
Week(s) of: 1/22
Program No: 16

QUOTE:

All men by nature desire knowledge.

-- Aristotle



MATH (ECONOMICS)

Understanding Taxes

SUBJECT: Economics
GRADES: 10-12
NUMBER OF SERIES: 9 Programs
MINUTES: 15 minutes (AIT)
OTHERS: Videotape and replay rights
yearly; RETAC (State buy)

CHANNEL: 12
DATE AND TIME: Mon. 1:15 pm
Fri. 11:00 am

SUMMARY: *Understanding Taxes* deals with such issues as why there are taxes, how taxes influence behavior, how taxes affect different income groups and how the burden of a tax is sometimes shifted. The series links issues of taxation to the high school curriculum in such areas as social studies, business education, consumer education, career education and economics. The programs show young people in activities typical of students in the target-age audience. Live action drama and special visuals are used to emphasize key points and relate the video events to fundamental issues of tax policy. The teacher guide includes print masters for

Title: *Income Tax and You*

Program Description: Emphasizes the concept of voluntary compliance on which our federal income tax system is based.

Week(s) of: 3/12

Program No: 1

Title: *Evolution of Our Federal Tax System*

Program Description: Traces the evolution of our federal tax system in response to the three fundamental goals of U.S. tax policy.

Week(s) of: 3/19

Program No: 2

Title: *Making Federal Tax Laws*

Program Description: Examines the formal and the

informal legislative procedures that lead federal tax legislation and tax policy in our Constitutional democracy.

Week(s) of: 3/26

Program No: 3

Title: *Taxes Raise Revenue*

Program Description: Emphasizes the basic idea that taxes are used to raise revenue and transfer resources from use by private individuals to use by various levels of government.

Week(s) of: 4/2

Program No: 4

Title: *Taxes...Can They Be Shifted?*

Program Description: Distinguishes between direct taxes and indirect taxes, and points out that sometimes a tax levied on one group may actually be paid by (shifted to) others.

Week(s) of: 4/23

Program No: 5

Title: *Taxes Influence Behavior*

Program Description: Illustrates how taxes and tax reductions influence people's behavior by discouraging or encouraging certain activities.

Week(s) of: 4/30

Program No: 6

(Call in only) 4/9

Title: *Taxes Involve Conflicting Goals*

Program Description: Illustrates how tax policy involves a compromise of conflicting goals, and indicates that people with the same income may not pay the same amount of taxes.

Week(s) of: 5/7

Program No: 7

Title: *Taxes Affect Different Income Groups*

Program Description: Shows how different taxes affect different income groups, and the distinction between progressive taxes.

MATH (ECONOMICS)

Understanding Taxes (Cont'd.)

regressive taxes and proportional taxes is indicated.

Week(s) of: 5/14

Program No: 8

Title: *Taxes...What is Fair?*

Program Description: Introduces three criteria that can be used to assess tax fairness: benefits received; ability to pay based on wealth; and ability to pay based on income.

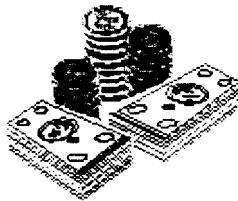
Week(s) of: 5/21

Program No: 9

INTERSECTIONS: For related programming check *Too Much, Too Little* in the **Single Time Series**.



CURRICULAR LINKS:

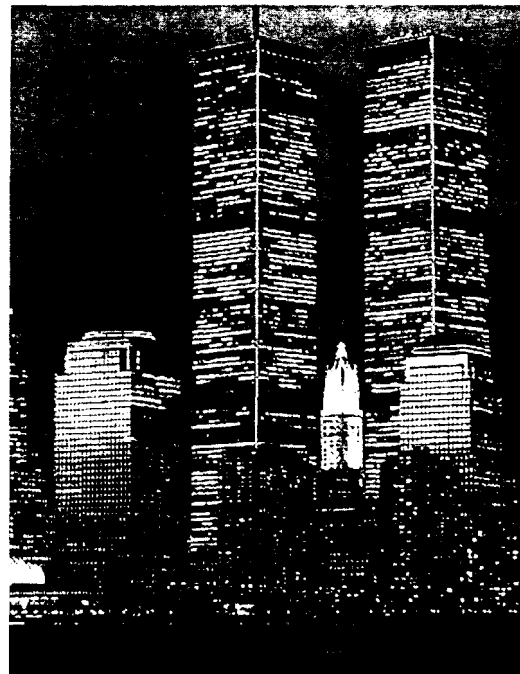


Internet links:

<http://taxhistory.tax.org> - The Tax History Project was established by Tax Analysts in 1995 to provide scholars, policymakers, students, the media, and citizens with information about the history of American taxation. The project pursues its mission through a program of web-based documentary publication and original historical research.

<http://www.taxweb.com> - TaxWeb. This site offers links to major tax information sites on the Web, along with answers to frequently asked tax questions.

<http://www.ustaxcourt.gov> - United States Tax Court. This official site provides information about the Tax Court established by Congress; the site includes answers to frequently asked questions, contact information, and other resources.



QUOTE:

In this world nothing can be said to be certain except death and taxes.-- *Benjamin Franklin*

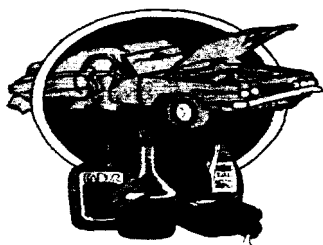
SCIENCE (HEALTH/SAFETY)

Calling All Safety Scouts

SUBJECT: Science: Health/Safety
GRADES: 1-3
NUMBER OF SERIES: 7 Programs
MINUTES: 15 minutes
OTHERS: Videotape and
replay rights yearly; RETAC

CHANNEL: 10
DATE AND TIME: Mon. 2:00 pm
Thur. 9:00 am

SUMMARY: Shows children how and where accidents can occur and sensible ways of preventing them. Safety quizzes, as well as other games and activities, are regular features of each program designed to provide vital safety concepts in a way that is both informative and fun. Using a magazine format, the series offers instruction in correct safety practices for the home, school and community at large.



ITV Link: *The Clyde Frog Show*

Title: *Safety at Home*
Week of: 3/19
Program No: 1

Title: *Safety at School*
Week of: 3/26
Program No: 2

Title: *Safety on Wheels*
Week of: 4/2
Program No: 3

Title: *Water Safety*

Week of: 4/23
Program No: 4

(Call in only)
Week of: 4/9
Program No:
Others:

Title: *Safety in the Country*
Week of: 4/30
Program No: 5

Title: *Safety at Play*
Week of: 5/7
Program No: 6

Title: *Citizen Seatbelt*
Week of: 5/14
Program No: 7

INTERSECTIONS: For related programming check *No Way Out* in the **Single Time Series**



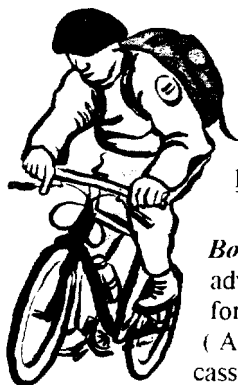
CURRICULAR LINKS:

Did you know? . Helmet use reduces the risk of bicycle-related death and injury and the severity of head injury when a crash occurs.

Internet Sites:

<http://www.safekids.org/>
<http://www.nvssf.org/>
<http://www.nsc.org/library.htm>

Book: *Make Way for Ducklings* - Follow the adventures of Mr. and Mrs. Mallard as they search for a home for their little ducklings. A classic book. (Author: Robert McCloskey. Softcover with cassette. 62 pages)



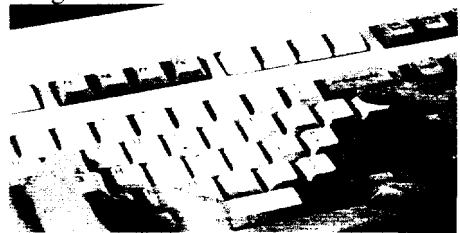
SCIENCE (Bio, Chem, Physics)

Concepts in Science

SUBJECT: Biology/Chemistry/Physics
GRADES: 10-12
NUMBER OF SERIES: 9 Series/6 10-min. programs in each (TVO)
MINUTES: 10 minutes
OTHERS: Videotape and replay rights yearly; RETAC (State buy)

CHANNEL: 12
DATE AND TIME: Mon. 2:15 pm
 Weds. 2:15 pm

SUMMARY: Often proceeding from historical background into modern research and theories, these series use computer animation to illustrate scientific principles and related applications in the real world. Each of the 11 series has its own teacher guide.



I Chemical Equilibrium

| | | |
|------|---|--------------------------|
| 9/11 | 1 | Steady Unsteadiness |
| 9/13 | 2 | Dynamic Equilibrium |
| 9/18 | 3 | Reaction Kinetics |
| 9/20 | 4 | Reaction Tendencies |
| 9/25 | 5 | The Equilibrium Constant |
| 9/27 | 6 | The Haber Process |

II Electricity

| | | |
|-------|---|---------------------------|
| 10/2 | 1 | Conductors and Insulators |
| 10/4 | 2 | Charging and Discharging |
| 10/9 | 3 | Charging by Induction |
| 10/11 | 4 | Current Electricity |
| 10/16 | 5 | Potential Difference |
| 10/18 | 6 | Resistance |

III Electromagnetism

| | | |
|-------|---|------------------------------|
| 10/23 | 1 | Earth's Magnetic Field |
| 10/25 | 2 | Magnetism and Electron Force |
| 10/30 | 3 | Domain Theory |
| 11/1 | 4 | The Motor Principle |
| 11/6 | 5 | Electromagnetic Induction |
| 11/8 | 6 | Life in the Field |

IV Electrochemistry

| | | |
|-------|---|---|
| 11/13 | 1 | The Building Blocks of Electrochemistry |
| 11/15 | 2 | Electrochemical Cells |
| 11/27 | 3 | Designing Electrochemical Cells |
| 11/29 | 4 | Commercial Electrochemical Cells |
| 12/4 | 5 | Corrosion |
| 12/6 | 6 | Electroplating |

V Nuclear Physics

| | | |
|-------|---|--------------------------------|
| 12/11 | 1 | The Discovery of Radioactivity |
| 12/13 | 2 | Properties of Becquerel Rays |
| 1/8 | 3 | Natural Transmutations |
| 1/10 | 4 | Energy from the Nucleus |
| 1/17 | 5 | Electrical Energy from Fission |
| 1/22 | 6 | Nuclear By-Products |

VI Organic Chemistry

| | | |
|------|---|------------------------|
| 1/24 | 1 | Carbon the Compromiser |
| 1/29 | 2 | The Shape of Carbon |
| 1/31 | 3 | Carbon Bonding |
| 2/5 | 4 | Fixing Fuels |
| 2/7 | 5 | Polylethylene |
| 2/12 | 6 | Harvest of Enzymes |

VII Organic Evolution

| | | |
|------|---|------------------------|
| 2/14 | 1 | In the Beginning |
| 2/21 | 2 | Darwin, Naturally |
| 2/26 | 3 | Factoring in Mendel |
| 2/28 | 4 | The Meiotic Mix |
| 3/5 | 5 | The Population Picture |
| 3/7 | 6 | Mutation and All That |

VIII Photosynthesis

| | | |
|------|---|--------------------|
| 3/12 | 1 | Seeing the Light |
| 3/14 | 2 | Absorbing Light |
| 3/19 | 3 | The Light Reaction |

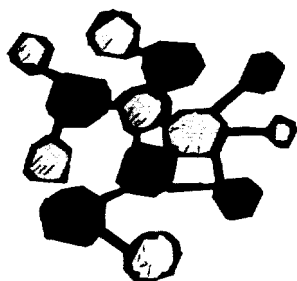
SCIENCE (Bio, Chem, Physics)

Concepts in Science

| | | |
|------|---|----------------------------|
| 3/21 | 4 | The Dark Reaction |
| 3/26 | 5 | C3 and C4 Plants |
| 3/28 | 6 | The Fluid-Transport System |

IX Wave Particle Duality

| | | |
|------|---|---------------------------|
| 4/2 | 1 | The Particle Model |
| 4/4 | 2 | The Wave Model |
| 4/23 | 3 | The Electromagnetic Model |
| 4/25 | 4 | The Quantum Idea |
| 4/30 | 5 | Photons |
| 5/12 | 6 | Matter Waves |



CURRICULAR LINKS:



Photograph circa 1928 - portrait of Madame Marie Curie, a science physicist.



Internet Links:

http://www.tufts.edu/as/wright_center/index.html

The Wright Center is dedicated to the creation and sharing of novel instructional techniques and interdisciplinary resources for pre-college teachers. Through its fellowships, workshops, seminars, and a variety of public-outreach activities, the Center provides leadership in the training and retraining of science teachers to use innovative methods to stimulate young minds

<http://math.ucr.edu/home/baez/physics/faq.html>

This is the web version of the Usenet Physics FAQ (Frequently Asked Questions). Its purpose is to provide good answers to questions which have been discussed often in sci physics and related usenet newsgroups. The articles in this FAQ are based on those discussions and on information from good reference sources

SCIENCE

Discovering

SUBJECT: Science
GRADES: 4-8
NUMBER OF SERIES: 30 Programs
MINUTES: 15 minutes (AIT, 1978)
OTHERS: Videotape and
 replay rights yearly; CTN

CHANNEL: 10
DATE AND TIME: Tues. 1:45 pm
 Thurs. 11:00 am

SUMMARY: Presents a range of scientific phenomena not normally observable in the classroom, using a variety of formats which include animation, on-camera experiments, photographs of plants and animals in their natural environment and action footage. The intention is to arouse curiosity, stimulate investigation, deepen the students' sense of the interdependence of living things and to encourage students to think in a scientific way.



CURRICULAR LINKS:

Internet Site:

<http://earth.thesphere.com/SAS/> - The Society for Amateur Scientists. A good site for lower grade students. The site encourages budding young scientists to engage in the scientific process.

CR-Rom: Encyclopedia of Nature/Science - An interactive exploration of the natural world, this two CD-ROM set includes thousands of in-depth articles, dozens of video sequences and animations, full-color photos and illustrations, and audio. Interactive features include comprehensive search capabilities, 3D models, a Quiz Master, and a link to Internet resources. Mathematics, physics, chemistry, botany and biology, ecology and the environment - its all

Title: *How Scientists
Classify Living Things*

Week of: 9/11
 Program No: 1

Title: *Fish*
 Week of: 9/18
 Program No: 2

Title: *Amphibians*
 Week of: 9/25
 Program No: 3

Title: *Physical and
Chemical Changes*
 Week of: 11/13
 Program No: 10

(Call in only)
 Week of: 11/20



Title: *Reptiles*
 Week of: 10/2
 Program No: 4

Title: *Birds*
 Week of: 10/9
 Program No: 5

Title: *Mammals*
 Week of: 10/16
 Program No: 6

Title: *Arthropods*
 Week of: 10/23
 Program No: 7

Title: *Non-Arthropods*
 Week of: 10/30
 Program No: 8

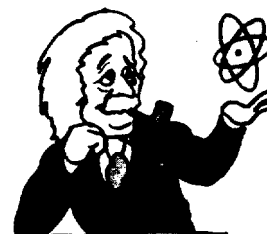
Title: *Molecules and
Matter*
 Week of: 11/6
 Program No: 9

Title: *Elements and
Compounds*
 Week of: 11/27
 Program No: 11

Title: *The Chemist
as Detective*
 Week of: 12/4
 Program No: 12

Title: *Energy*
 Week of: 12/11
 Program No: 13

Title: *Energy
Changes*
 Week of: 1/8
 Program No: 14



SCIENCE

Discovering (Cont'd.)

Title: *Heat Energy*
Week of: 1/15
Program No: 15

Title: *How Heat
Energy Travels*
Week of: 1/22
Program No: 16

Title: *The Space Age*
Week of: 1/29
Program No: 17

Title: *The New
Frontier*
Week of: 2/5
Program No: 18

Title: *Space
Experiments: Sky
Lab*
Week of: 2/12
Program No: 19

Title: *Space
Technology*
Week of: 2/19
Program No: 20



Title: *Minerals*
Week of: 2/26
Program No: 21

Title: *Igneous Rock*
Week of: 3/5
Program No: 22

Title: *Sedimentary Rock*
Week of: 3/12
Program No: 23

Title: *Metamorphic Rock*
Week of: 3/19
Program No: 24

Title: *How Plants Are
Classified*
Week of: 3/26
Program No: 25

Title: *Descendants of Ancient
Plants*
Week of: 4/2
Program No: 26

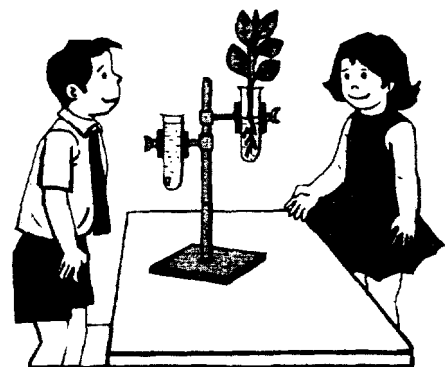
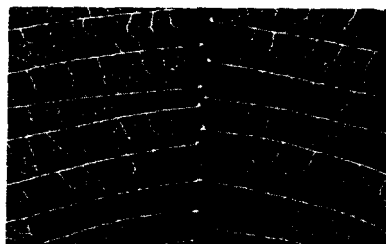
Title: *Lower Plant Forms*
Week of: 4/23
Program No: 27

Title: *Interdependence of
Living Things*
Week of: 4/30
Program No: 28

(Call in only)
Week of: 4/9

Title: *Habitats*
Week of: 5/7
Program No: 29

Title: *Human
Interdependence with
Other Organisms*
Week of: 5/14
Program No: 30



SCIENCE

Discovering Pets

SUBJECT: Science
GRADES: 1-3
NUMBER OF SERIES: 8 Programs
MINUTES: 15 minutes (WNPE-WNPI, 1978)
OTHERS: Videotape and
replay rights in perpetuity courtesy of WNPE!

CHANNEL: 8
DATE AND TIME: Mon. 9:15 am
Thurs. 1:00 pm

SUMMARY: Helps develop positive value formations in the humane treatment of animals, respect for animals in the wild, as well as a responsible attitude necessary to become a pet owner. After a visit to the zoo, the delightful and inquisitive *Willie* wants a pet of his very own, but realizes that he has much to learn first. Through the talents of his ventriloquist friend, Peggy Miller Nolder, the audience is asked to join them on their adventures to the veterinarian, the farm, a pet store, the classroom, the nature center and the S.P.C.A. to learn more about pet and animal care.

ITV Link: *Head to Toe*

ITV Link: *Out & About*

Title: *The Zoo: Willie Wants a Pet*

Program Description: In this first episode, viewers will be introduced to Peggy Nolder and *Willie*. While visiting the zoo, Willie decides he wants a pet.

Week of: 3/19

Program No: 1

Title: *Willie Visits a Veterinarian*

Program Description: Willie learns the importance of good health care in a pet's life. He also listens to a dog's heartbeat and visits an operating room for animals.

Week of: 3/26

Program No: 2

Title: *Farm Animals*

Program Description: While on a visit to a farm, Willie rides a horse, feeds a newborn calf, pets some baby rabbits and discusses pet care with the farm owner. He also learns that not all farm animals make good pets for everyone. *(Call in only)*

Week of: 4/2

Program No: 3



Title: *The Pet Store*

From gerbils and iguanas to birds and puppies,

Willie visits a pet store and realizes that there are different kinds of pets from the small and quiet to the large and sometimes noisy and that they all need attention and care.

SCIENCE

Discovering Pets (Cont'd.)

Week of: 4/23
Program No: 4

Title: *A Classroom Pet/Humane Society Visit*

Program Description: Would a skunk make a good classroom pet? A visit from the Humane Society helps the class realize the responsibility in caring for a pet.

Week of: 4/30
Program No: 5

(Call in only)
Week of: 4/9

Title: *A Trip to the Nature Center*

Program Description: Animals are everywhere and especially in the Minna Anthony Nature Center. Willie learns some valuable lessons on respecting the lives and homes of animals in the wild as well as some interesting facts about them.

Week of: 5/7
Program No. 6

Title: *A Visit to the S.P.C.A.*

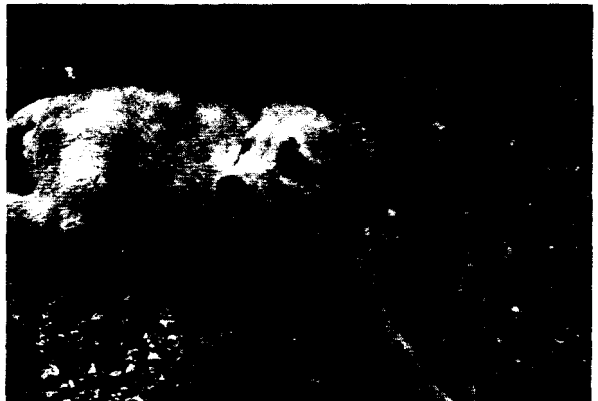
Program Description: Dogs, cats, rabbits and even a ferret are all waiting for a new home after being abandoned by their owners. Saddened, Willie realizes more than ever the importance of being a responsible and loving pet owner.

Week of: 5/14
Program No: 7

Title: *Willie Gets a Pet*

Program Description: At last! Willie has a pet of his very own. He shows off his new pet and what he has learned about pet care to his neighbor Tim. Classroom pets.

Week of: 5/21
Program No: 8



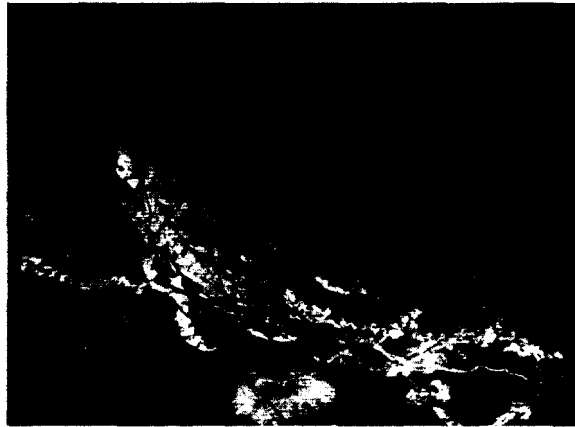
SCIENCE

EB ☀ Beginning Science

SUBJECT: Science
GRADES: 1-4
NUMBER OF SERIES: 21 Programs
MINUTES: 8-16 minutes (EB)
OTHERS: Videotape and
 replay rights yearly; EB

CHANNEL: 10
DATE AND TIME: Mon. 11:30 am
 Fri. 11:30 pm

SUMMARY: A wide range of natural settings
 exposes children to the wonder and complexity of the
 physical and biological world and encourages a
 growing curiosity about and respect for all the
 different forms of life.



Title: *What Plants Need
 for Growth*
 Week of: 10/9
 Program No: 1
 Others: 11 minutes

Title: *Learning*
 Week of: 10/ 16
 Program No: 2
 Others: 15 minutes

Title: *Poison Plants*
 Week of: 10/ 23
 Program No: 3
 Others: 11 minutes

Title: *Insects in a Garden*
 Week of: 10/30
 Program No: 4
 Others: 10 minutes

Title: *Looking at Fishes*
 Week of: 11/6
 Program No: 21
 Others: 11 minutes

Title: *Looking at
 Amphibians*
 Week of: 11/13
 Program No: 5
 Others: 8 minutes

(Call in only)
 Week of: 11/20

Title: *Looking at Reptiles*
 Week of: 11/29
 Program No: 6
 Others: 11 minutes

Title: *Looking at Birds*
 Week of: 12/4
 Program No: 7
 Others: 11 minutes

Title: *Looking at
 Mammals*
 Week of: 12/11
 Program No: 8
 Others: 10 minutes

Title: *Things Change:
 Solids, Liquids, Gases*
 Week of: 1/8
 Program No: 9
 Others: 10 minutes

Title: *Wondering About
 Air*
 Week of: 1/15
 Program No: 10
 Others: 12 minutes

Title: *Water and What
 It Does*
 Week of: 1/22
 Program No: 11
 Others: 11 minutes

Title: *Wondering About
 Sound*
 Week of: 1/29
 Program No: 12
 Others: 10 minutes

Title: *Wondering About
 Light*

Week of: 2/5
 Program No: 13
 Others: 10 minutes
 Title: *Heat and How We
 Use It*
 Week of: 2/12
 Program No: 14
 Others: 11 minutes

Title: *Electricity and
 How It's Made*
 Week of: 2/19
 Program No: 15
 Others: 16 minutes

Title: *Living & Non-
 Living Things Are
 Everywhere*
 Week of: 2/26
 Program No: 16
 Others: 12 minutes

Title: *Living Things
 in a Drop of Water*
 Week of: 3/5
 Program No: 17
 Others: 12 minutes

Title: *Adventures of
 Bunny Rabbit*
 Week of: 3/12
 Program No: 18
 Others: 11 minutes

Title: *Boots and Her
 Kittens*
 Week of: 3/19
 Program No: 19
 Others: 11 minutes

Title: *Cheechako's
 First Day*
 Week of: 3/26
 Program No: 20
 Others: 8 minutes

ITV Link: *Just for Me*

SCIENCE

EB ☀ Earth Science

SUBJECT: Science
GRADES: 5 +
NUMBER OF SERIES: 30 Programs
MINUTES: 11-24 minutes (EB)
OTHERS: Videotape and
 replay rights yearly; EB
CHANNEL: 10
DATE AND TIME: Weds. 1:00 am
 Thurs. 11:30 am

SUMMARY: The beauty of each program in this series encourages a sense of wonder and inquiry toward complex earth processes. Dramatic photography, models and demonstrations show techniques of geological investigation. Laboratory experiments, animation and microphotography help to illustrate the nature, dynamics and applications of physical phenomena. Basic sources of energy and power offer students a complexity underlying the physical world.



CURRICULAR LINKS:

Internet links:

<http://www.geologylink.com> - GeologyLink - a public forum for all matters geological. This area is open to students, university instructors, teachers, professional geologists, amateurs, and anyone else who seeks insight into the world's daily geological rumblings.

<http://www.cbt.virginia.edu/Olh> - Biological Timing Online Science Experiment - Using the internet, you can participate in a real science experiment conducted here at the Center for Biological Timing. View live images and actual experiment results, analyze real-time data, form hypotheses, suggest variables for new experiments, and share conclusions with other scientists from all over the world. Display your scientific artwork.

Book: *Physical Science: Hands-on Activities to Promote Student Involvement* - This resource book is designed - through a project-oriented, hands-on approach - to put science investigation in the hands of the students. You'll find easy-to-do activities featuring these science concepts: chemistry, magnetism, electricity, light, pressures, sound and machines. (softcover 90 pages)

Title: *Exploring Planet Earth*

Week of: 10/2
 Program No: 1
 Others: 20 minutes

Title: *Evidence for the Ice Ages*

Week of: 10/9
 Program No: 2
 Others: 14 minutes

Title: *Erosion: Leveling the Land*

Week of: 10/16
 Program No: 3
 Others: 14 minutes

Title: *Minerals and Rocks*

Week of: 10/23
 Program No: 4
 Others: 15 minutes

Title: *Rocks That Originate Underground*

Week of: 10/30
 Program No: 5
 Others: 23 minutes

Title: *Rocks That Form on the Earth's Surface*

Week of: 11/6
 Program No: 6
 Others: 17 minutes

Title: *Volcanoes: Exploring the Restless Earth*

Week of: 11/13
 Program No: 7
 Others: 18 minutes

(Call in only)
 Week of: 11/20

Title: *Earthquakes:*

Title: *Lesson of Disaster*

Week of: 11/27
 Program No: 8
 Others: 13 minutes

Title: *The San Andreas Fault*

Week of: 12/4
 Program No: 9
 Others: 21 minutes

Title: *Continental Drift: Plate Tectonics*

Week of: 12/11
 Program No: 10
 Others: 22 minutes

Title: *Learning About Nuclear Energy*

Week of: 1/8
 Program No: 11
 Others: 15 minutes

Title: *Learning About Magnetism*

Week of: 1/15
 Program No: 12
 Others: 14 minutes

Title: *Learning About Light*

Week of: 1/22
 Program No: 13
 Others: 15 minutes



SCIENCE

EB ☼ Earth Science (Cont'd.)

Title: *Learning About Electrical Current*
Week of: 1/29
Program No: 14
Others: 15 minutes

Title: *Learning About Heat*
Week of: 2/5
Program No: 15
Others: 15 minutes

Title: *Learning About Sound*
Week of: 2/12
Program No: 16
Others: 17 minutes

Title: *Fossils: Exploring the Past*
Week of: 2/19
Program No: 17
Others: 16 minutes

Title: *Reflections on Time*
Week of: 2/26
Program No: 18
Others: 22 minutes

Title: *Geologic Time*
Week of: 3/5
Program No: 19
Others: 24 minutes

Title: *What Makes Weather?*
Week of: 3/12
Program No: 20
Others: 14 minutes

Title: *Atmosphere in Motion*
Week of: 3/19
Program No: 21
Others: 14 minutes

Title: *Water Cycle*
Week of: 3/26
Program No: 22
Others: 14 minutes

Title: *Jungles: The Green Oceans*
Week of: 4/2
Program No: 23
Others: 23 minutes

Title: *The Sea: Mysteries of the Deep*
Week of: 4/23
Program No: 24
Others: 23 minutes

Title: *Energy for the Future*
Week of: 4/30
Program No: 25
Others: 17 minutes

(Call in only)
Week of: 4/9



Did you know? Jupiter is the largest planet in the solar system – it's 11 times bigger than earth!

Title: *The Sun: Its Power and Promise*
Week of: 5/7
Program No: 26
Others: 24 minutes

Title: *The Solar System**
Week of: 5/14
Program No: 27
Others: 20 minutes

Title: *The Universe: Beyond Solar System*
Week of: 5/21
Program No: 28
Others: 18 minutes

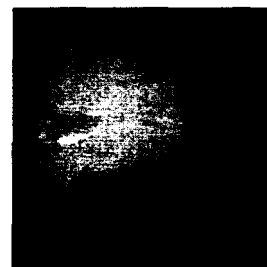
Title: *The Night Sky*
Week of: 5/28
Program No: 29
Others: 11 minutes

Title: *Beginner's Guide to Constellations*
Week of: 6/4
Program No: 30
Others: 12 minutes



CURRICULAR LINKS:

*Note: Neptune now known to have 5 rings, 8 moons and weather!



Neptune has eight known satellites. Only two of them—Triton and Nereid—can be seen by telescopes on the earth. The other six satellites and several rings around the planet were discovered by Voyager 2 in 1989. Bradford A. Smith, "Neptune," *World Book Online Americas Edition*, <http://www.worldbookonline.com/wbol/wbAuth/na/ar/ts/ar386900.htm>, August 31, 2000

<http://ericir.syr.edu/Virtual/Lessons/Science/Space/index.html>

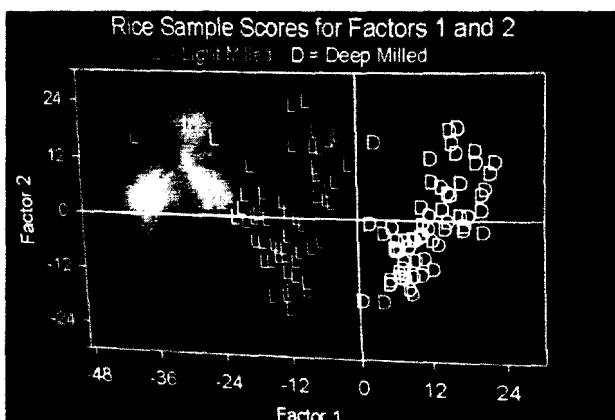
SCIENCE

EB ☀ Life Science

SUBJECT: Science
GRADES: 5 +
NUMBER OF SERIES: 27 Programs
MINUTES: 10-26 minutes (EB)
OTHERS: Videotape and
 replay rights yearly; EB

CHANNEL: 10
DATE AND TIME: Tues. 1:15 pm
 Fri. 1:00 am

SUMMARY: The beauty of each program in this series encourages a sense of wonder and inquiry toward complex life processes and phenomena. Dramatic photography, models and demonstrations show techniques of biological investigation. Laboratory experiments, animation and microphotography help to illustrate the nature, dynamics and applications of principles of structure, growth, development and survival.



Title: *Learning About Cells*
 Week of: 9/11
 Program No: 1
 Others: 15 minutes

Title: *Meiosis* (1980)
 Week of: 9/18

Program No: 2
 Others: 14 minutes

Title: *Mitosis* (1980)
 Week of: 9/25
 Program No: 3
 Others: 15 minutes

Title: *Life Story of a Plant*
 Week of: 10/2
 Program No: 4
 Others: 11 minutes

Title: *Flowers at Work*
 Week of: 10/9
 Program No: 27
 Others: 16 minutes

Title: *Photosynthesis*
 Week of: 10/16
 Program No: 5
 Others: 20 minutes

Title: *Diffusion and Osmosis*
 Week of: 10/23
 Program No: 6
 Others: 13 minutes

Title: *Worms: the Annelida*
 Week of: 10/30
 Program No: 7
 Others: 13 minutes

Title: *Mollusks*
 Week of: 11/6
 Program No: 8
 Others: 14 minutes

Title: *Insects* (1953)
 Week of: 11/13
 Program No: 9
 Others: 13 minutes

(Call in only)
 Week of: 11/20

Title: *Spiders* (1956)
 Week of: 11/27
 Program No: 10

Others: 10 minutes

Title: *Crustaceans*
 Week of: 12/4
 Program No: 11
 Others: 14 minutes

Title: *What is a Fish?*
 Week of: 12/11
 Program No: 12
 Others: 22 minutes

Title: *What is an Amphibian?*
 Week of: 1/8
 Program No: 13
 Others: 11 minutes

Title: *What is a Reptile?*
 Week of: 1/15
 Program No: 14
 Others: 18 minutes

Title: *What is a Bird?*
 Week of: 1/22
 Program No: 15
 Others: 16 minutes

Title: *What is a Mammal?*
 Week of: 1/29
 Program No: 16
 Others: 16 minutes

Title: *Senses and Perception*
 Week of: 2/5
 Program No: 17
 Others: 18 minutes

Title: *Respiratory System*
 Week of: 2/12

SCIENCE

EB ☀ Life Science (Cont'd.)

Program No: 18
Others: 26 minutes

Title: *Heart/
Circulatory System*
Week of: 2/19
Program No: 19
Others: 16 minutes

Title: *Digestive
System*
Week of: 2/26
Program No: 20
Others: 19 minutes

Title: *Nervous
System*
Week of: 3/5
Program No: 21
Others: 17 minutes

Title: *Skeleton*
Week of: 3/12
Program No: 22
Others: 17 minutes

Title: *Muscles*
Week of: 3/19
Program No: 23
Others: 25 minutes

Title: *Birth: How Life
Begins*
Week of: 3/26
Program No: 24
Others: 23 minutes

ITV Link: *Violence
Prevention*



CURRICULAR LINKS:

Internet links:

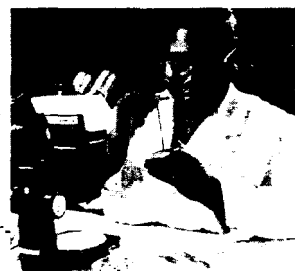
<http://sln.fi.edu/biosci/heart.html> - The Heart: An On-line Exploration. Explore the human heart through sound, pictures, and movies. Great photographs and movies; don't miss the live heart surgery movie. Also, listen to the lub-dub of the heart.

http://www.msms.doc.k12.ms.us/biology/anatomy/digestive/digestive_frame.html An anatomy and physiology of the digestive system. Follow the path of food as it passes from the mouth through the large intestine. This site is loaded with rich diagrams and illustrations. Excellent resource for middle school and high school students.

CD-Rom: Bodyworks: A 3d Journey to the human body. This journey through human anatomy contains 3-D models, videos, animation, a glossary of anatomic terms, and reference material on more than 1,500 topics.

Kit: Smithsonian Anatomy Lab. Set includes a plastic anatomy figure with 10 removable parts, molded display stand, and a detailed booklet presenting fascinating information about the human body.

Book: The Care and Keeping of You. This book answers many questions that girls may have about the changes that they experience as they grow, develop, and mature. (Author: Valorie Lee Schaefer. Softcover 104 pages)



Title: *Body Defenses
Against Disease*
Week of: 4/2
Program No: 25
Others: 23 minutes

Title: *Monarch Butterfly*
Week of: 4/23
Program No: 26
Others: 9 minutes

